

THREADMILLING

Versatile, **cost effective** ThreadMilling
solution for **high productivity**





THREADMILLING



High productive threadmilling tools

Various inserts fit one shank for ultimate versatility
and reduced inventory

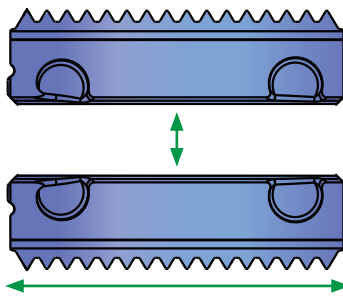
THREADMILLING - ETLN type

Indexable threadmilling tool for machining centers

Inserts available in a range of thread standards, including:

- ISO Metric - Unified - Whitworth (Parallel pipe threads)
- NPT - NPTF - BSPT

Double-sided insert (parallel threads)



25 mm long insert

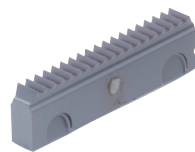
For reduced machining time for long threads



No screw holes on the insert

- Allows for smaller and more compact insert design, which enables multiple tooth geometry on small diameter tools
- Enhances insert reliability because more material is used to increase the insert robustness

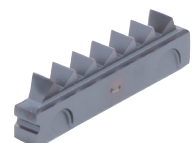
A range of threads can be machined simply by replacing the inserts



ISO metric:
1 mm to 3 mm

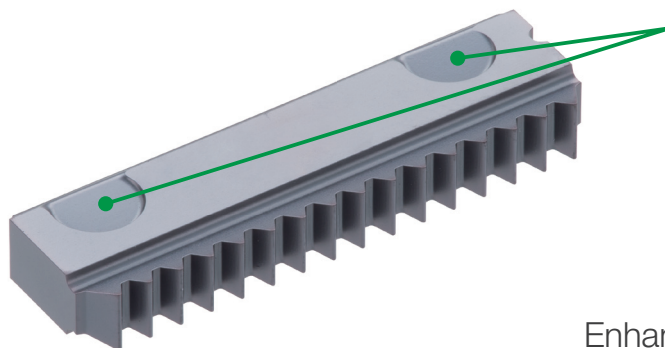


Unified:
20 - 8 TPI

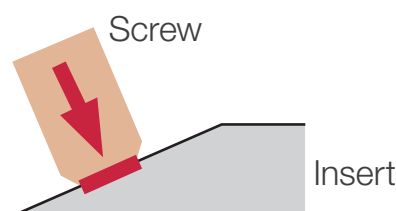


Whitworth:
14 and 11 TPI

Innovative insert clamping system prevents the insert from moving during machining



Unique clamping points to enhance insert retention



Enhanced insert retention thanks to face-to-face contact between screw and insert

All the standard tool bodies are equipped with internal coolant holes to aid chip removal and promote longer tool life

Optimized coolant hole design for thread milling

Ensures ample coolant supply to the entire threading area



Weldon shank

For high torque resistance and pull-out security

2 types of neck lengths available for every diameter (ETLN type)

For an ideal tool overhang and length-to-diameter ratio

(Note: for $\varnothing 30$ mm, only one type of neck length is available for taper thread holders only one type of neck length is available)

Multi-tooth design for higher productivity

Tool $\varnothing 17$ mm - 2 teeth
Tool $\varnothing 20.5$ mm - 3 teeth
Tool $\varnothing 30$ mm - 5 teeth

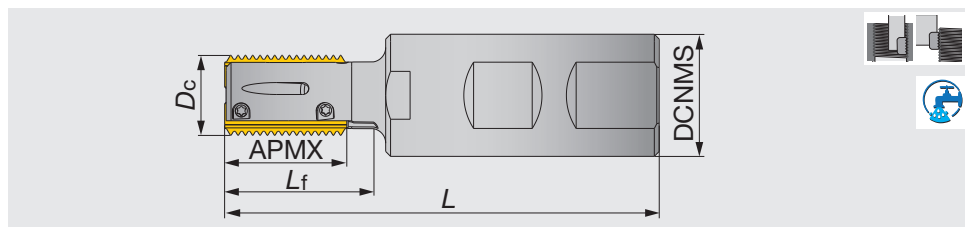


THREADMILLING - ETLN type

Indexable threading mills

ETLN

Shank type holder for parallel thread

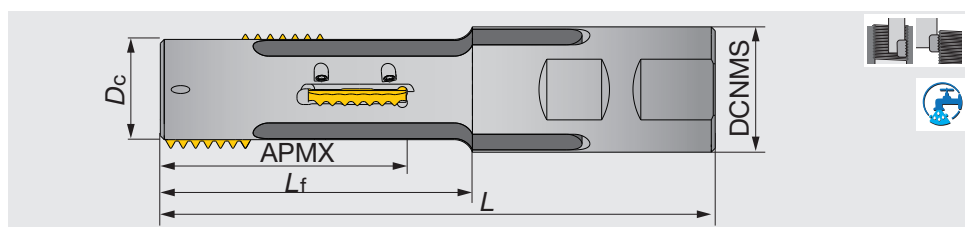
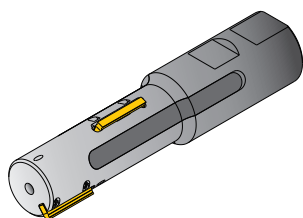


Designation	Dc	APMX	z	DCNMS	Lf	L	Oil hole	Insert
ETLN25M017W25.0F026R02 ¹⁾	17	25	2	25	26	85	with	LN25....
ETLN25M017W25.0F036R02 ¹⁾	17	25	2	25	36	95	with	LN25....
ETLN25M019W25.0F032R02	19	25	2	25	32	92	with	LN25....
ETLN25M019W25.0F044R02	19	25	2	25	44	104	with	LN25....
ETLN25M021W25.0F037R03	20.5	25	3	25	37	96	with	LN25....
ETLN25M021W25.0F044R03	20.5	25	3	25	44	103	with	LN25....
ETLN25M022W25.0F043R03	22	25	3	25	43	102	with	LN25....
ETLN25M022W25.0F055R03	22	25	3	25	55	114	with	LN25....
ETLN25M030W25.0F055R05	30	25	5	25	55	115	with	LN25....

¹⁾ Inserts with a thread pitch of ≥ 3 mm or ≥ 8 TPI are not moutable

ETLN25X

Shank type holder for parallel thread (holder with carbide reinforcement)



Designation	Dc	APMX	z	DCNMS	Lf	L	Oil hole	Insert
ETLN25X3M30W32F80R01T-8UN	30	57.15	3	32	80	142	with	LN25DIR8UN

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench
ETLN25...	SSTM-3-3	T-6F	T-6D

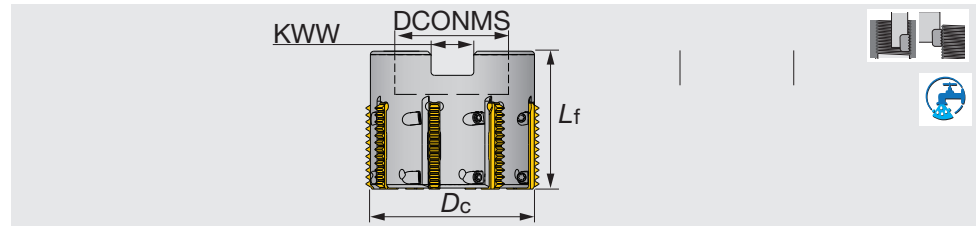
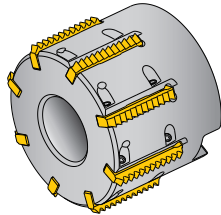
T-6D wrench is not included in the standard package

THREADMILLING - TTLN type

Shell mill type holder for parallel thread

TTLN

Indexable threading cutter for parallel thread



Designation	D _c	APMX	z	DOCNMS	L _f	KWW	Oil hole	Insert
TTLN25M36B16.0R05	36	25	5	16	33.5	8.4	with	LN25....
TTLN25M44B22.0R06	44	25	6	22	38	10.4	with	LN25....
TTLN25M52B27.0R08	52	25	8	27	40	12.4	with	LN25....
TTLN25M100B27.0R16	100	25	16	27	50	12.4	with	LN25....

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench
TTLN25...	SSTM-3-3	T-6F	T-6D

T-6D wrench is not included in the standard package

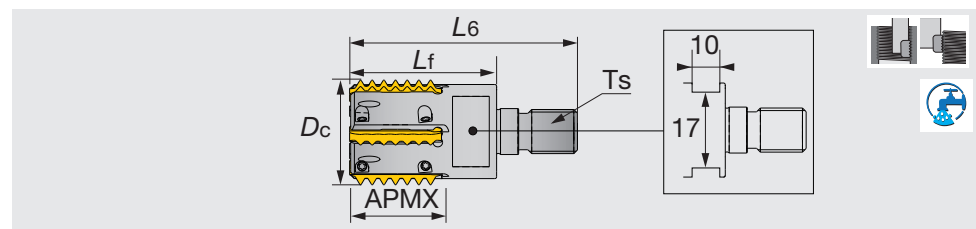
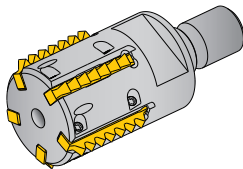
1) Inserts with a thread pitch of ≥ 3 mm or ≥ 8 TPI are not moutable

TUNG FLEX

TungFlex head for parallel thread

HTLN

Modular head for parallel threading, screw-on (TungFlex)



Designation	D _c	APMX	z	L ₆	L _f	T _s	Oil hole	Insert
HTLN25M030M12R05	30	25	5	62	40	M12	with	LN25....

SPARE PARTS

Designation	Clamping screw	Wrench	Wrench
HTLN25...	SSTM-3-3	T-6F	T-6D

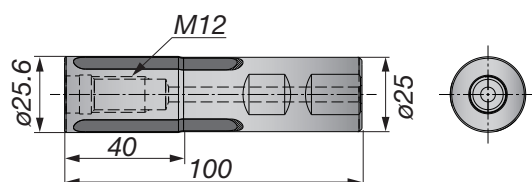
T-6D wrench is not included in the standard package

1) Inserts with a thread pitch of ≥ 3 mm or ≥ 8 TPI are not moutable

● : Standard stock item
□ : Non stock item

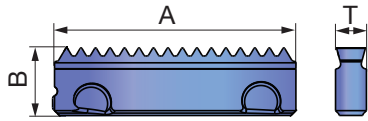
WSM12-L100-C25T

TungFlex Shank (holder with carbide reinforcement)



INSERTS

LN25...



P	Steel	★
M	Stainless	☆
K	Cast iron	☆
N	Non-ferrous	☆
S	Superalloys	★
H	Hard materials	★

★ : First choice
☆ : Second choice

Thread type	Application	Designation	Pitch	Thread per inch	Coated			A	B	T
					AC22					
ISO Metric	Internal	LN25DIR1.0ISO	1.0	-	●			25	7	3.1
		LN25DIR1.25ISO	1.25	-	●					
		LN25DIR1.5ISO	1.5	-	●					
		LN25DIR2.0ISO	2	-	●					
		LN25DIR2.5ISO	2.5	-	●					
		LN25DIR3.0ISO ²⁾	3	-	●					
Unified	Internal	LN25DIR20UN	-	20	●			25	7	3.1
		LN25DIR16UN	-	16	●					
		LN25DIR14UN	-	14	●					
		LN25DIR12UN	-	12	●					
		LN25DIR9UN	-	9	●					
		LN25DIR8UN ²⁾	-	8	●					
Whitworth	Internal and external	LN25DEIR14W	-	14	●			25	7	3.1
		LN25DEIR11W	-	11	●					

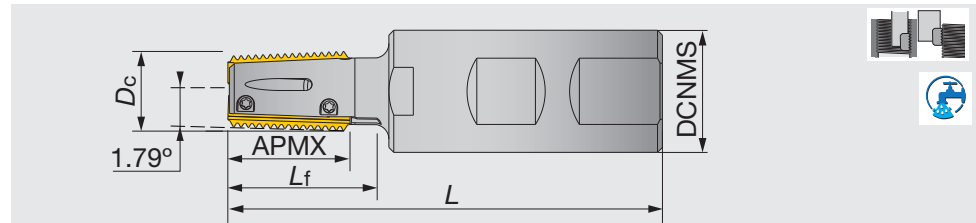
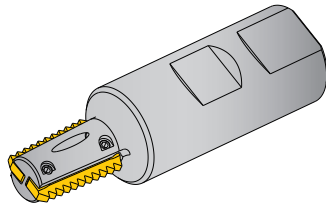
²⁾ Does not fit the øDc17 holder

THREADMILLING - KBN type

Shank type holder for taper thread

KBN-25...-PT

Shank type holder for taper thread



Designation	Dc	APMX	z	DCNMS	Lf	L	Oil hole	Insert
KBN-25D17L26/85S25Z2-PT	17	25	2	25	26	85	with	NN-25....-PTF...
KBN-25D22L43/102S25Z3-PT	22	25	3	25	43	102	with	NN-25....-PTF...

SPARE PARTS

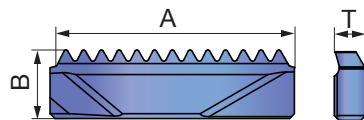
Designation	Clamping screw	Wrench	Wrench
KBN-25D...	SSTM-3-3	T-6F	T-6D

T-6D wrench is not included in the standard package

1) Inserts with a thread pitch of ≥ 3 mm or ≥ 8 TPI are not moutable

INSERTS

NN-25...-PT



P	Steel	★
M	Stainless	☆
K	Cast iron	☆
N	Non-ferrous	☆
S	Superalloys	★
H	Hard materials	★

★ : First choice
☆ : Second choice

Thread type	Application	Designation	Pitch	Thread per inch	Coated			A	B	T
					AC22					
NPT	Internal & External	NN-25SEIR14NPT	-	14	●			25	7	3.1
		NN-25SEIR11.5NPT	-	11.5	●					
NPTF	Internal & External	NN-25SEIR14NPTF	-	14	●			25	7	3.1
BSPT	Internal & External	NN-25SEIR11BSPT	-	11	●			25	7	3.1
		NN-25SEIR14BSPT	-	14	●					

2) Does not fit the $\phi Dc17$ holder

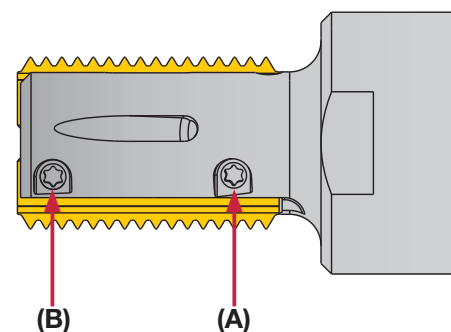
STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed V_c (m/min)	Feed per tooth f_z (mm/t)
P	Low carbon steel	AC22	100 - 200	0.1 - 0.3
	High carbon steel	AC22	70 - 150	0.1 - 0.3
	High carbon steels	AC22	70 - 170	0.1 - 0.3
	Cast steel	AC22	70 - 170	0.1 - 0.3
M	Stainless steel	AC22	90 - 140	0.1 - 0.3
K	Cast iron	AC22	60 - 130	0.05 - 0.3
N	Aluminium alloys	AC22	80 - 400	0.1 - 0.4
S	Heat-resistant alloys	AC22	10 - 30	0.02 - 0.1
	Titanium alloy	AC22	20 - 90	0.02 - 0.1

• Climb milling is recommended.

Insert installation

1. Use airgun or rug to thoroughly clean all the insert pockets free from dust or chips.
2. Lightly tighten Screw "A" first, then Screw "B" until the insert becomes stationary.
3. Lightly tighten the screws for other insert(s) in the same matter as mentioned in 2 above.
4. Firmly tighten Screw "A", then Screw "B".
Use the recommended torque strengths when tightening the screws.
5. Firmly tighten the screws for other insert(s) in the same manner as mentioned in 4 above.
6. Inspect to make sure there is no gap between the insert and the insert seat. Measure the radial runout before use.

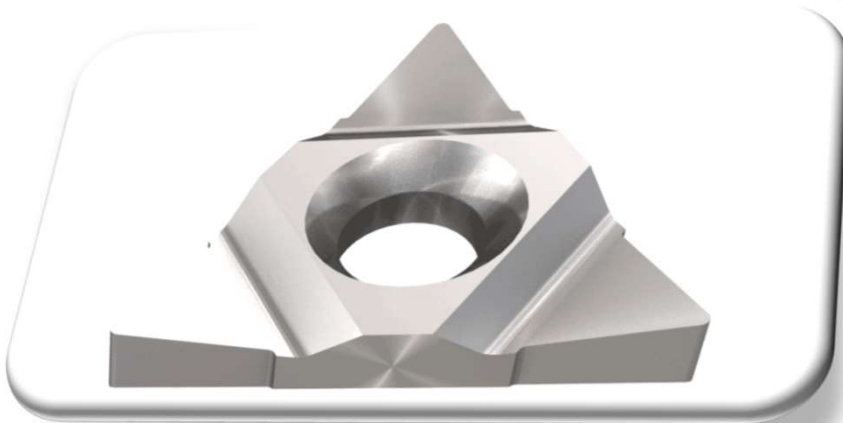




Distributed by:



TC SERIES THREAD MILLING



TOOL  **FLO**
Member IMC Group



TC SERIES SHELL MILL SPECIFICATION

S	MT	6	S	C	D56	22
Style of tool	Mill Thread	No of Flutes	S= Single point	C= Coolant	Cutting Dia	Drive Hole
S= Shell Mill		6 Flutes			Cutting Dia 56	22 mm Drive Hole

16	U
Insert Size	Style of Insert
16mm insert	U Style

TC SERIES END MILL SPECIFICATION

E	MT	3	S	C	25	W
Style of tool	Mill Thread	No of Flutes	S= Single point	C= Coolant	Shank Dia	Type of shank
E= End mill		3 Flutes			25mm shank	W= Weldon

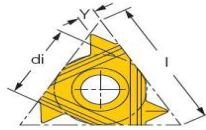
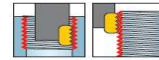
26	80	11	U	D
Cutting Dia	Thread length can be machined	Insert size	Insert style	Dampening
Cutting dia 26	80mm	11mm insert	U style	

TC SERIES THREAD MILLING



MT3-55D

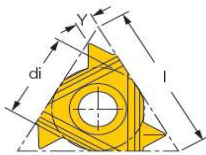
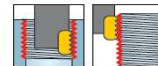
55° Partial Profile Laydown Thread Milling Inserts, for General Industry



Designation	di	TPI _{max}	TPI _{min}	I	Y	AC22
MT3 1155D	6.35	24	14	11.00	1.0	●
MT3 1655D	9.52	12	8	16.00	1.8	●

MT3-60D

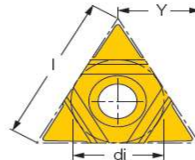
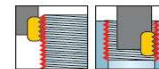
60° Partial Profile Laydown Thread Milling Inserts, for General Industry



Designation	di	P _{min}	P _{max}	TPI _{max}	TPI _{min}	I	Y	AC22
MT3 1160D	6.35	1.00	2.00	24	12	11.00	1.0	●
MT3 1660D	9.52	2.50	3.50	10	7	16.00	1.8	●

MT3-U55D

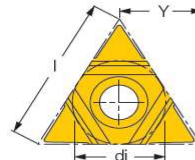
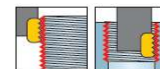
55° Partial Profile Laydown U-Type Thread Milling Inserts, for General Industry



Designation	di	TPI _{max}	TPI _{min}	I	Y	AC22
MT3 11U55D	6.35	12	7	11.00	5.0	●
MT3 16U55D	9.52	6	4.5	16.00	7.6	●

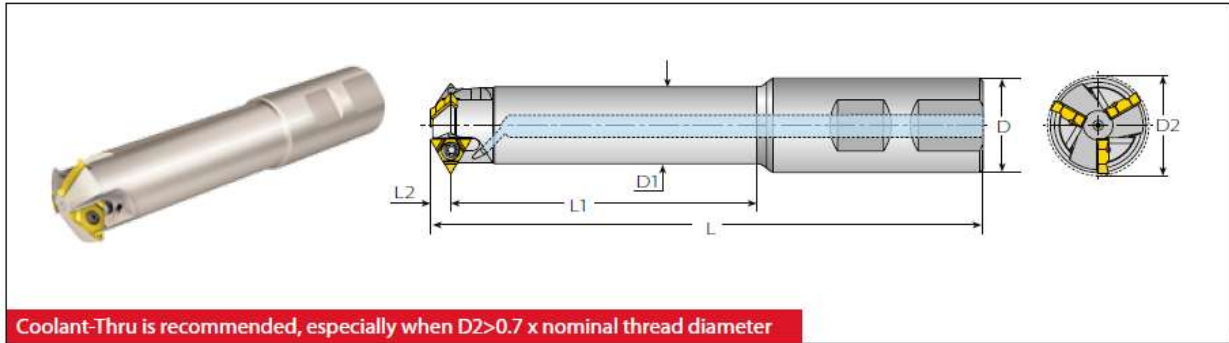
MT3-U60D

60° Partial Profile Laydown U-Type Thread Milling Inserts, for General Industry

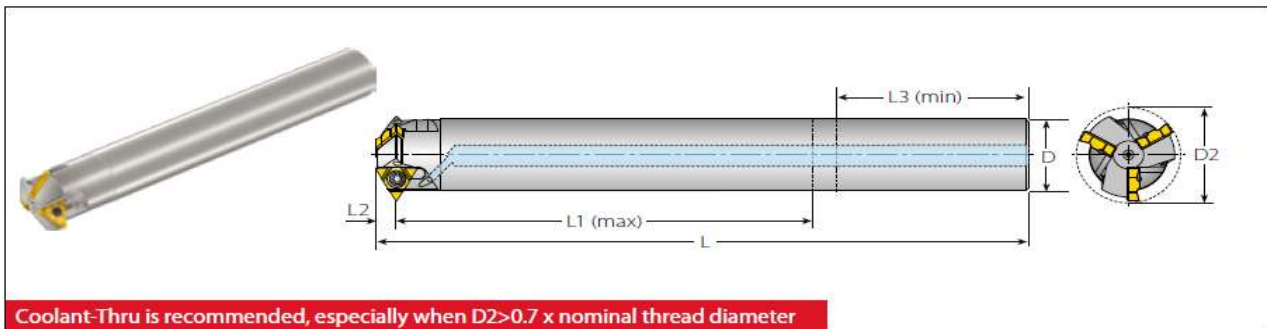


Designation	di	Pitch In	Pitch Ex	TPI Int	TPI Ext	I	Y	AC22
MT3 11U60D	6.35	2.5-4.0	2.0-3.0	10-6	12-8	11.00	5.0	●
MT3 16U60D	9.52	4.0-6.0	3.0-5.0	6-4	8-5	16.00	7.6	●

TC SERIES THREAD MILLING



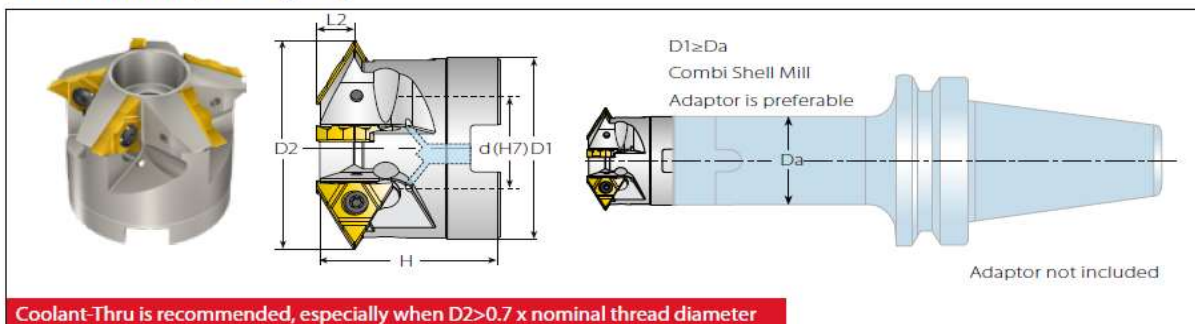
Insert Size Length	Ordering Code	Dimensions mm						No of Flutes Z
		L	L1	L2	D	D1	D2	
11 mm	EMT1SC 16W15-40-11U	95	40	5.4	16	11	14.75	1
	EMT2SC 25W21-60-11U	123	60	5.4	25	16	20.65	2
	EMT2SC 25W23-70-11U	135	70	5.4	25	17.7	23	2
	EMT3SC 25W26-80-11U	147	80	5.4	25	20.4	26	3
	EMT4SC 32W31-95-11U -D	164	95	5.4	32	25.7	31	4
16mm	EMT3SC 32W36-95-16U -D	166	95	8	32	29	36.5	3
	EMT4SC 40W42-120-16U -D	201	120	8	40	34.2	42	4



Insert Size Length	Ordering Code	Dimensions mm						No of Flutes Z
		L	L1	L2	L3(min)	D	D2	
11	EMT2SC 18C23-86-11U -D	166	86	5.4	40	18	23.3	2
	EMT3SC 20C26-105-11U -D	186	105	5.4	40	20	26	3
	EMT4SC 25C31-115-11U -D	196	115	5.4	46	25	31	4
16	EMT3SC 28C36-144-16U -D	222	144	8	60	28	36.5	3



Shell Mill (U Style)



Insert Size Length	Ordering Code	Dimensions mm					No of Flutes Z
		D1	D2	d(H7)	H	L2	
16	SMT4SC D42-16-16U	34	42	16	40	8	4
	SMT5SC D48-22-16U	40	48	22	40	8	5
	SMT6SC D56-22-16U	48	56	22	40	8	6

SPARES

11U style insert
16U Style insert



Screw

Key

S11	T-8/5
S16S	K16



Designation	D	Y	Z	d	L	Insert	Kg
MTSR 0023 Q11	23.50	1.0	3	20.00	190.00	MT3 11..D	0.41
MTSR 0031 R16	31.00	1.8	3	25.00	225.00	MT3 16..D	0.76

• Minimum bore should be one-third larger than D

SPARE PARTS



Designation	Screw	Key
MTSR 0023 Q11	S11	T-8/5
MTSR 0031 R16	S16S	K16



Recommended Grades, Cutting Speeds Vc [m/min] and Feed f [mm/tooth]

Material Group	NO	Material		Brinell Hardness HB	AC22	Cutting Dia D2		
						13-23	24-42	Shell Mill
P Steel	1	Unalloyed Steel	Low Carbon (C=0.1-0.25%)	125	100-210	0.20-0.32	0.30-0.50	0.30-0.75
	2		Medium Carbon (C=0.25-0.55%)	150	100-180	0.20-0.32	0.30-0.50	0.30-0.75
	3		High Carbon (C=0.55-0.85%)	170	100-170	0.15-0.23	0.25-0.35	0.25-0.52
	4	Low Alloy Steel (alloying elements≤5%)	Non Hardened	180	60-90	0.17-0.28	0.28-0.45	0.28-0.67
	5		Hardened	275	80-150	0.15-0.28	0.25-0.45	0.25-0.67
	6		Hardened	350	70-140	0.15-0.25	0.25-0.40	0.25-0.60
	7	High Alloy Steel (alloying elements>5%)	Annealed	200	60-130	0.15-0.22	0.20-0.30	0.20-0.45
	8		Hardened	325	70-110	0.13-0.21	0.18-0.30	0.18-0.45
	9	Cast Steel	Low Alloy (alloying elements <5%)	200	100-170	0.15-0.22	0.20-0.30	0.20-0.45
	10		High Alloy (alloying elements >5%)	225	70-120	0.12-0.22	0.17-0.30	0.17-0.45
M Stainless Steel	11	Stainless Steel Ferritic	Non Hardened	200	100-170	0.15-0.22	0.22-0.34	0.22-0.50
	12		Hardened	330	100-170	0.16-0.23	0.21-0.32	0.21-0.48
	13	Stainless Steel Austenitic	Austenitic	180	70-140	0.15-0.25	0.25-0.40	0.25-0.60
	14		Super Austenitic	200	70-140	0.12-0.20	0.17-0.26	0.17-0.39
	15	Stainless Steel Cast Ferritic	Non Hardened	200	70-140	0.16-0.24	0.25-0.37	0.25-0.55
	16		Hardened	330	70-140	0.12-0.20	0.17-0.26	0.17-0.39
	17	Stainless Steel Cast Austenitic	Austenitic	200	70-120	0.15-0.22	0.20-0.30	0.20-0.45
	18		Hardened	330	70-120	0.12-0.20	0.17-0.26	0.17-0.39
K Cast Iron	28	Malleable Cast Iron	Ferritic (short chips)	130	60-130	0.16-0.24	0.25-0.37	0.25-0.55
	29		Pearlitic (long chips)	230	60-120	0.15-0.22	0.20-0.30	0.20-0.45
	30	Grey Cast Iron	Low Tensile Strength	180	60-130	0.15-0.22	0.22-0.34	0.22-0.50
	31		High Tensile Strength	260	60-100	0.15-0.22	0.20-0.30	0.20-0.45
	32	Nodular Sg Iron	Ferritic	160	60-125	0.10-0.20	0.15-0.25	0.15-0.37
	33		Pearlitic	260	50-90	0.15-0.22	0.20-0.30	0.20-0.45
N Non-Ferrous Metals	34	Aluminium Alloys Wrought	Non Aging	60	100-250	0.30-0.50	0.60-1.00	0.60-1.50
	35		Aged	100	100-180	0.28-0.50	0.50-0.90	0.50-1.20
	36	Aluminium Alloys	Cast	75	150-400	0.28-0.50	0.50-0.90	0.50-1.20
	37		Cast & Aged	90	150-280	0.25-0.40	0.40-0.60	0.40-0.90
	38	Aluminium Alloys	Cast Si 13-22%	130	80-150	0.28-0.50	0.50-0.90	0.50-1.20
	39	Copper and Copper Alloys	Brass	90	120-210	0.30-0.50	0.60-1.00	0.60-1.50
	40		Bronze and Non Leaded Copper	100	120-210	0.28-0.50	0.50-0.90	0.50-1.20
S Heat Resistant Material	19	High Temperature Alloys	Annealed (iron based)	200	20-45	0.09-0.15	0.12-0.22	0.12-0.33
	20		Aged (iron based)	280	20-30	0.07-0.13	0.10-0.20	0.10-0.30
	21		Annealed (nickel or cobalt based)	250	15-20	0.08-0.15	0.08-0.20	0.08-0.30
	22		Aged (nickel or cobalt based)	350	10-15	0.08-0.15	0.08-0.20	0.08-0.30
	23	Titanium Alloys	Pure 99.5 Ti	400Rm	70-140	0.07-0.13	0.10-0.20	0.10-0.30
	24		α+β alloys	1050Rm	20-50	0.07-0.13	0.10-0.20	0.10-0.30
H Hardened Material	25	Extra Hard Steel	Hardened & Tempered	45-50HRC	15-45	0.05-0.12	0.05-0.18	0.05-0.27
	26			51-55HRC	15-40	0.05-0.12	0.05-0.18	0.05-0.27



MTEC SOLID THREAD MILLING

ISO THREADING MTECS Internal



Description	EDP Code	Pitch	Th	d	D	Flute	H	L	SHANK C-Cylindrical	Grade
MTECS 03007C2 0.25ISO	MTECS 03007C2 0.25ISO	0.25	M1	3.00	0.72	3	2.50	39.00	C	AC22
MTECS 03009C3 0.25ISO	MTECS03009C30.25ISO	0.25	M1.2	3.00	0.90	3	3.00	39.00	C	AC22
MTECS 03011C4 0.3ISO	MTECS03011C40.3ISO	0.30	M1.4	3.00	1.05	3	4.00	39.00	C	AC22
MTECS 03012C5 0.35ISO	MTECS03012C50.35ISO	0.35	M1.6	3.00	1.20	3	4.80	39.00	C	AC22
MTECS 03016C6 0.4ISO	MTECS03016C60.4ISO	0.40	M2	3.00	1.53	3	6.00	39.00	C	AC22
MTECS 06016C4 0.4ISO	MTECS06016C40.4ISO	0.40	M2	6.00	1.53	3	4.50	58.00	C	AC22
MTECS 03017C7 0.45ISO	MTECS03017C70.45ISO	0.45	M2.2	3.00	1.65	3	7.00	39.00	C	AC22
MTECS 06017C5 0.45ISO	MTECS 06017C5 0.45ISO	0.45	M2.2	6.00	1.65	3	5.00	58.00	C	AC22
MTECS 0602C5 0.45ISO	MTECS0602C50.45ISO	0.45	M2.5	6.00	1.95	3	5.50	58.00	C	AC22
MTECS 0602C7 0.45ISO	MTECS0602C70.45ISO	0.45	M2.5	6.00	1.95	3	7.50	58.00	C	AC22
MTECS 06024C6 0.5ISO	MTECS06024C60.5ISO	0.50	M3	6.00	2.37	3	6.50	58.00	C	AC22
MTECS 06024C9 0.5ISO	MTECS06024C90.5ISO	0.50	M3	6.00	2.37	3	9.50	58.00	C	AC22
MTECS 06024C9 0.5ISO-L	MTECS06024C90.5ISO-L	0.50	M3	6.00	2.37	3	9.50	105.00	C	AC22
MTECS 03024C12 0.5ISO	MTECS 03024C12 0.5ISO	0.50	M3	3.00	2.40	3	12.50	39.00	C	AC22
MTECS 06028C10 0.6ISO	MTECS 06028C10 0.6ISO	0.60	M3.5	6.00	2.75	3	10.50	58.00	C	AC22
MTECS 06028C7 0.6ISO	MTECS06028C70.6ISO	0.60	M3.5	6.00	2.75	3	7.50	58.00	C	AC22
MTECS 06031C12 0.7ISO	MTECS06031C120.7ISO	0.70	M4	6.00	3.10	3	12.50	58.00	C	AC22
MTECS 06031C12 0.7ISO-L	MTECS06031C120.7ISO-L	0.70	M4	6.00	3.10	3	12.50	105.00	C	AC22
MTECS 06031C16 0.7ISO	MTECS06031C160.7ISO	0.70	M4	6.00	3.10	3	16.70	58.00	C	AC22
MTECS 06031C9 0.7ISO	MTECS06031C90.7ISO	0.70	M4	6.00	3.10	3	9.00	58.00	C	AC22
MTECS 0808D25 0.75ISO	MTECS0808D250.75ISO	0.75	M10	8.00	8.00	4	25.00	64.00	C	AC22
MTECS 06038C12 0.8ISO	MTECS06038C120.8ISO	0.80	M5	6.00	3.80	3	12.50	58.00	C	AC22
MTECS 06038C16 0.8ISO	MTECS06038C160.8ISO	0.80	M5	6.00	3.80	3	16.00	58.00	C	AC22
MTECS 06038C16 0.8ISO-L	MTECS06038C160.8ISO-L	0.80	M5	6.00	3.80	3	16.00	105.00	C	AC22
MTECS 06047C14 1.0ISO	MTECS06047C141.0ISO	1.00	M6	6.00	4.65	3	14.00	58.00	C	AC22
MTECS 06047C20 1.0ISO	MTECS06047C201.0ISO	1.00	M6	6.00	4.65	3	20.00	58.00	C	AC22
MTECS 06047C20 1.0ISO-L	MTECS06047C201.0ISO-L	1.00	M6	6.00	4.65	3	20.00	105.00	C	AC22
MTECS 0606C18 1.25ISO	MTECS0606C181.25ISO	1.25	M8	6.00	6.00	3	20.00	58.00	C	AC22
MTECS 0606C24 1.25ISO	MTECS0606C181.25ISO	1.25	M8	6.00	6.00	3	24.00	58.00	C	AC22
MTECS 08078C23 1.5ISO	MTECS08078C231.5ISO	1.50	M10	8.00	7.80	3	23.00	64.00	C	AC22
MTECS 1009C26 1.75ISO	MTECS1009C261.75ISO	1.75	M12	10.00	9.00	3	26.00	73.00	C	AC22
MTECS 12118D35 2.0ISO	MTECS12118D352.0ISO	2.00	M16	12.00	11.80	4	35.00	84.00	C	AC22
MTECS 12118D50 2.0ISO	MTECS12118D502.0ISO	2.00	M16	12.00	11.80	4	50.00	105.00	C	AC22
MTECS 1615E43 2.5ISO	MTECS1615E432.5ISO	2.50	M20	16.00	15.00	5	43.00	105.00	C	AC22

ISO THREADING MTEC Internal



Description	EDP Code	PITCH	M Coarse	M Fine	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTEC 06038C10 0.5ISO	MTEC06038C100.5ISO	0.50	-	>5	6.00	3.80	3	10.30	58.00	C	AC22
MTEC 06022C5 0.5ISO	MTEC06022C50.5ISO	0.50	M3	>4	6.00	2.20	3	5.30	58.00	C	AC22
MTEC 06031C7 0.7ISO	MTEC06031C70.7ISO	0.70	M4	>5	6.00	3.10	3	7.40	58.00	C	AC22
MTEC 06045C10 0.75ISO	MTEC06045C100.75ISO	0.75	-	>6	6.00	4.50	3	10.00	58.00	C	AC22
MTEC 06036C9 0.8ISO	MTEC06036C90.8ISO	0.80	M5	>6	6.00	3.60	3	9.20	58.00	C	AC22
MTEC 0606C12 1.0ISO	MTEC0606C121.0ISO	1.00	-	>9	6.00	6.00	3	12.50	58.00	C	AC22
MTEC 0808D16 1.0ISO	MTEC0808D161.0ISO	1.00	-	>10	8.00	8.00	4	16.50	64.00	C	AC22
MTEC 0604C10 1.0ISO	MTEC0604C101.0ISO	1.00	M6	>7	6.00	4.00	3	10.50	58.00	C	AC22
MTEC 0604C14 1.0ISO	MTEC0604C141.0ISO	1.00	M6	>7	6.00	4.00	3	14.50	58.00	C	AC22
MTEC 0605C14 1.25ISO	MTEC0605C141.25ISO	1.25	M8	>10	6.00	5.00	3	14.40	58.00	C	AC22
MTEC 0605C19 1.25ISO	MTEC0605C191.25ISO	1.25	M8	>10	6.00	5.00	3	19.40	58.00	C	AC22
MTEC 1010D21 1.5ISO	MTEC1010D211.5ISO	1.50	-	>14	10.00	10.00	4	21.80	73.00	C	AC22
MTEC 1616F33 1.5ISO	MTEC1616F331.5ISO	1.50	-	>20	16.00	16.00	6	33.80	105.00	C	AC22
MTEC 0807C17 1.5ISO	MTEC0807C171.5ISO	1.50	M10	>12	8.00	7.00	3	17.30	64.00	C	AC22
MTEC 0807C24 1.5ISO	MTEC0807C241.5ISO	1.50	M10	>12	8.00	7.00	3	24.80	76.00	C	AC22
MTEC 0808C20 1.75ISO	MTEC0808C201.75ISO	1.75	M12	>14	8.00	8.00	3	20.10	64.00	C	AC22
MTEC 0808C28 1.75ISO	MTEC0808C281.75ISO	1.75	M12	>14	8.00	8.00	3	28.90	76.00	C	AC22
MTEC 1212D27 2.0ISO	MTEC1212D272.0ISO	2.00	-	>18	12.00	12.00	4	27.00	84.00	C	AC22
MTEC 2020F41 2.0ISO	MTEC2020F412.0ISO	2.00	-	>26	20.00	20.00	6	41.00	105.00	C	AC22
MTEC 1010C27 2.0ISO	MTEC1010C272.0ISO	2.00	M16	>17	10.00	10.00	3	27.00	73.00	C	AC22
MTEC 1010C39 2.0ISO	MTEC1010C392.0ISO	2.00	M16	>17	10.00	10.00	3	39.00	105.00	C	AC22
MTEC 1414D33 2.5ISO	MTEC1414D332.5ISO	2.50	M20	>22	14.00	14.00	4	33.80	84.00	C	AC22
MTEC 1414D48 2.5ISO	MTEC1414D482.5ISO	2.50	M20	>22	14.00	14.00	4	48.80	105.00	C	AC22
MTEC 1616C40 3.0ISO	MTEC1616C403.0ISO	3.00	M24	>25	16.00	16.00	3	40.50	105.00	C	AC22
MTEC 1616C58 3.0ISO	MTEC1616C583.0ISO	3.00	M24	>25	16.00	16.00	3	58.50	120.00	C	AC22

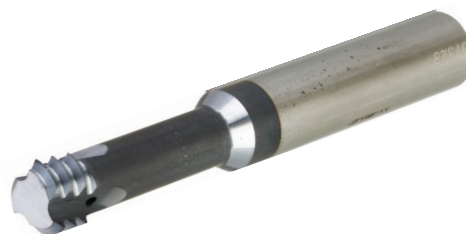


ISO THREADING MTECB with coolant holes Internal



Description	EDP Code	PITCH	M Coarse	M Fine	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTECB 06038C10 0.5ISO	MTECB06038C100.5ISO	0.50	-	>=5	6.00	3.80	3	10.30	58.00	C	AC22
MTECB 06031C7 0.7ISO	MTECB06031C70.7ISO	0.70	M4	>=5	6.00	3.10	3	7.40	58.00	C	AC22
MTECB 06045C10 0.75ISO	MTECB06045C100.75ISO	0.75	-	>=6	6.00	4.50	3	10.10	58.00	C	AC22
MTECB 06038C9 0.8ISO	MTECB06038C90.8ISO	0.80	M5	>=6	6.00	3.80	3	9.20	58.00	C	AC22
MTECB 0606C12 1.0ISO	MTECB0606C121.0ISO	1.00	-	>=9	6.00	6.00	3	12.50	58.00	C	AC22
MTECB 0808D16 1.0ISO	MTECB0808D161.0ISO	1.00	-	>=10	8.00	8.00	4	16.50	64.00	C	AC22
MTECB 1010D24 1.0ISO	MTECB1010D241.0ISO	1.00	-	>=12	10.00	10.00	4	14.40	58.00	C	AC22
MTECB 0604C10 1.0ISO	MTECB0604C101.0ISO	1.00	M6	>=7	6.00	4.60	3	10.50	58.00	C	AC22
MTECB 0604C14 1.0ISO	MTECB0604C141.0ISO	1.00	M6	>=6	6.00	4.60	3	14.50	58.00	C	AC22
MTECB 0606C14 1.25ISO	MTECB0606C141.25ISO	1.25	M8	>=10	6.00	6.00	3	14.40	58.00	C	AC22
MTECB 0606C19 1.25ISO	MTECB0606C191.25ISO	1.25	M8	>=10	6.00	6.00	3	19.40	58.00	C	AC22
MTECB 1010D21 1.5ISO	MTECB1010D211.5ISO	1.50	-	>=14	10.00	10.00	4	21.80	73.00	C	AC22
MTECB 1616F33 1.5ISO	MTECB1616F331.5ISO	1.50	-	>=20	16.00	16.00	6	33.80	105.00	C	AC22
MTECB 1212D26 1.5ISO	MTECB1212D261.5ISO	1.50	-	>=16	12.00	12.00	4	26.30	84.00	C	AC22
MTECB 08078C17 1.5ISO	MTECB08078C171.5ISO	1.50	M10	>=12	8.00	7.80	3	17.00	64.00	C	AC22
MTECB 08078C24 1.5ISO	MTECB08078C241.5ISO	1.50	M10	>=12	8.00	7.80	3	24.80	76.00	C	AC22
MTECB 1009C20 1.75ISO	MTECB1009C201.75ISO	1.75	M12	>=12	10.00	9.00	3	20.10	73.00	C	AC22
MTECB 1009C28 1.75ISO	MTECB1009C281.75ISO	1.75	M12	>=12	10.00	9.00	3	20.10	73.00	C	AC22
MTECB 1010C27 2.0ISO	MTECB1010C272.0ISO	2.00	M14	>=15	10.00	10.00	3	27.00	73.00	C	AC22
MTECB 12118D27 2.0ISO	MTECB12118D272.0ISO	2.00	M16	>=17	12.00	11.80	4	27.00	84.00	C	AC22
MTECB 12118D39 2.0ISO	MTECB12118D392.0ISO	2.00	M16	>=17	12.00	11.80	4	39.00	105.00	C	AC22
MTECB 1615E33 2.5ISO	MTECB1615E332.5ISO	2.50	M20	>=22	16.00	15.00	5	33.80	105.00	C	AC22
MTECB 1615E48 2.5ISO	MTECB1615E482.5ISO	2.50	M20	>=22	16.00	15.00	5	48.80	105.00	C	AC22
MTECB 2018D58 3.0ISO	MTECB2018D583.0ISO	3.00	M24	>=25	20.00	18.00	4	58.50	120.00	C	AC22

ISO THREADING MTECD Internal



Description	EDP Code	PITCH	Th	d	D	Flute	H	L	Ch	L1	SHANK C-Cylindrical	Coolant	Grade
MTECD 06032C11 1.7ISO	MTECD06032C111.7ISO	0.70	M4	6.00	3.15	3	11.60	58.00	0.2	0.7	C	N	ACS22
MTECD 0604C14 0.8ISO	MTECD0604C140.8ISO	0.80	M5	6.00	4.00	3	14.40	58.00	0.3	0.8	C	N	ACS22
MTECD 08047C14 1.0ISO	MTECD08047C141.0ISO	1.00	M6-M9	8.00	4.70	3	14.00	64.00	0.4	1.0	C	Y	ACS22
MTECD 08061D18 1.25ISO	MTECD08061D181.25ISO	1.25	M8-M12	8.00	6.10	4	18.00	64.00	0.5	1.3	C	Y	ACS22
MTECD 08078D23 1.5ISO	MTECD08078D231.5ISO	1.50	M10-M15	8.00	7.80	4	23.00	64.00	0.6	1.5	C	Y	ACS22
MTECD 1009D26 1.75ISO	MTECD1009D261.75ISO	1.75	M12	10.00	9.00	4	26.00	73.00	0.6	1.8	C	Y	ACS22
MTECD 12118D35 2.0ISO	MTECD12118D352.0ISO	2.00	M16-M23	12.00	11.80	4	35.00	84.00	0.6	2.0	C	Y	ACS22

ISO THREADING MTEC E External



Description	EDP Code	Pitch	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTEC E 1010D16 1.0ISO	MTECE1010D161.0ISO	1.00	10.00	10.00	4	16.50	73.00	C	AC22
MTEC E 1010D16 1.25ISO	MTECE1010D161.25ISO	1.25	10.00	10.00	4	16.90	73.00	C	AC22
MTEC E 1010D15 1.5ISO	MTECE 1010D15 1.5ISO	1.50	10.00	10.00	4	15.80	73.00	C	AC22
MTEC E 1212D20 1.5ISO	MTECE1212D201.5ISO	1.50	12.00	12.00	4	20.30	84.00	C	AC22
MTEC E 1212D20 1.75ISO	MTECE1212D201.75ISO	1.75	12.00	12.00	4	20.10	84.00	C	AC22
MTEC E 1212D21 2.0ISO	MTECE1212D202.0ISO	2.00	12.00	12.00	4	21.00	84.00	C	AC22



MTEC SOLID THREAD MILLING

ISO THREADING MTECSH Internal



Description	EDP Code	Pitch	Th	d	D	Flute	H	L	SHANK C-Cylindrical	Grade
MTECSH 03012C5 0.35ISO	MTECSH03012C50.35ISO	0.35	M1.6	3.00	1.20	3	4.80	39.00	C	AC312
MTECSH 03016C6 0.4ISO	MTECSH03016C60.4ISO	0.40	M2	3.00	1.55	3	6.00	39.00	C	AC312
MTECSH 06016C4 0.4ISO	MTECSH06016C40.4ISO	0.40	M2	6.00	1.55	3	4.50	58.00	C	AC312
MTECSH 06017C5 0.45ISO	MTECSH06017C50.45ISO	0.45	M2.2	6.00	1.65	3	5.00	58.00	C	AC312
MTECSH 0602C5 0.45ISO	MTECSH0602C50.45ISO	0.45	M2.5	6.00	1.95	3	5.50	58.00	C	AC312
MTECSH 0602C7 0.45ISO	MTECSH0602C70.45ISO	0.45	M2.5	6.00	1.95	3	7.50	58.00	C	AC312
MTECSH 06024C6 0.5ISO	MTECSH06024C60.5ISO	0.50	M3	6.00	2.35	3	6.50	58.00	C	AC312
MTECSH 06024C9 0.5ISO	MTECSH06024C90.5ISO	0.50	M3	6.00	2.35	3	9.50	58.00	C	AC312
MTECSH 06028C7 0.6ISO	MTECSH06028C70.6ISO	0.60	M3.5	6.00	2.75	3	7.50	58.00	C	AC312
MTECSH 06031C12 0.7ISO	MTECSH06031C60.7ISO	0.70	M4	6.00	3.10	3	12.50	58.00	C	AC312
MTECSH 06038C12 0.8ISO	MTECSH06038C120.8ISO	0.80	M5	6.00	3.80	3	12.50	58.00	C	AC312
MTECSH 06038C16 0.8ISO	MTECSH06038C160.5ISO	0.80	M5	6.00	3.80	3	16.00	58.00	C	AC312
MTECSH 06047C14 1.0ISO	MTECSH06047C141.0ISO	1.00	M6	6.00	4.65	3	14.00	58.00	C	AC312
MTECSH 06047C20 1.0ISO	MTECSH06047C201.0ISO	1.00	M6	6.00	4.65	3	20.00	58.00	C	AC312
MTECSH 0606C18 1.25ISO	MTECSH0606C181.25ISO	1.25	M8	6.00	5.95	3	18.00	58.00	C	AC312
MTECSH 0606C24 1.25ISO	MTECSH0606C241.25ISO	1.25	M8	6.00	5.95	3	24.00	58.00	C	AC312
MTECSH 08078C23 1.5ISO	MTECSH08078C231.5ISO	1.50	M10	8.00	7.80	3	23.00	64.00	C	AC312
MTECSH 1009C26 1.75ISO	MTECSH1009C261.75ISO	1.75	M12	10.00	9.00	3	26.00	73.00	C	AC312
MTECSH 12118D35 2.0ISO	MTECSH 12118D35 2.0ISO	2.00	M16	12.00	11.80	4	35.00	84.00	C	AC312

Cutting Data for Hardened Steel

ISO	Material	Hardness HRC	Cutting Speed m/min	Feed (mm/tooth) for Cutting Diameter (mm)								
				1.5	2	3	4	5	6	7	8	9
H	Hardened Steels	45-50	60-70	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.08
		51-55	50-60	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.07
		56-62	40-50	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06

ISO THREADING MTECQ with coolant holes Internal



Description	EDP Code	Pitch	Th	d	D	Flute	ap	H	L	SHANK C-Cylindrical	Grade
MTECQ 1212D38 1.0ISO	MTECQ1212D381.0ISO	1.00	>=14	12.00	12.00	4	21.00	38.00	84.00	C	AC22
MTECQ 1010D30 1.5ISO	MTECQ1010D301.5ISO	1.50	>=13	10.00	10.00	4	18.00	30.00	73.00	C	AC22
MTECQ 2020F56 2.0ISO	MTECQ2020F562.0ISO	2.00	>=24	20.00	20.00	6	34.00	56.00	105.00	C	AC22
MTECQ 2020D45 3.5ISO	MTECQ2020D453.5ISO	3.50	>=26	20.00	20.00	4	28.00	45.50	105.00	C	AC22

ISO THREADING MTECZ with coolant holes in the flutes Internal



Description	EDP Code	PITCH	M Coarse	M Fine	d	D	F	ap	L	SHANK C-Cylindrical	Grade
MTECZ 0808D16 1.0ISO	MTECB0808D161.0ISO	1.00	-	>10	8.00	8.00	4	16.50	64.00	C	AC22
MTECZ 06048C10 1.0ISO	MTECZ06048C101.0ISO	1.00	M6	>7	6.00	4.80	3	10.50	58.00	C	AC22
MTECZ 0606C14 1.25ISO	MTECB0606C141.25ISO	1.25	M8	>10	6.00	6.00	3	14.40	58.00	C	AC22
MTECZ 0606C19 1.25ISO	MTECB0606C191.25ISO	1.25	M8	>10	6.00	6.00	3	19.40	58.00	C	AC22
MTECZ 1010D21 1.5ISO	MTECZ1010D211.5ISO	1.50	-	>14	10.00	10.00	4	21.80	73.00	C	AC22
MTECZ 1212D26 1.5ISO	MTECZ1212D261.5ISO	1.50	-	>16	12.00	12.00	4	26.30	84.00	C	AC22
MTECZ 1616E33 1.5ISO	MTECZ1616E331.5ISO	1.50	-	>20	16.00	16.00	5	33.80	101.00	C	AC22
MTECZ 08078C17 1.5ISO	MTECB08078C171.5ISO	1.50	M10	>12	8.00	7.80	3	17.00	64.00	C	AC22
MTECZ 1009C28 1.75ISO	MTECB1009C281.75ISO	1.75	M12	>12	10.00	9.00	3	28.90	73.00	C	AC22
MTECZ 1010C27 2.0ISO	MTECB1010C272.0ISO	2.00	M14	>15	10.00	10.00	3	27.00	73.00	C	AC22
MTECZ 12118D27 2.0ISO	MTECB12118D272.0ISO	2.00	M16	>17	12.00	11.80	4	27.00	84.00	C	AC22



MJ THREADING

MTECS

with coolant holes in the flutes

Internal



Description	EDP Code	Pitch	Th	d	D	Flute	H	L	SHANK C-Cylindrical	Grade
MTECS 06032C10 0.7MJ	MTECS06032C100.7MJ	0.70	MJ4	6.00	3.20	3	10.00	58.00	C	AC22
MTECS 06039C12 0.8MJ	MTECS06039C120.8MJ	0.80	MJ5	6.00	3.90	3	12.50	58.00	C	AC22
MTECS 06048C4 1.0MJ	MTECS06048C41.0MJ	1.00	MJ6	6.00	4.80	3	15.00	58.00	C	AC22
MTECS 08061C20 1.25MJ	MTECS08061C201.25MJ	1.25	MJ8	8.00	6.10	3	20.00	64.00	C	AC22
MTECS 10092C30 1.75MJ	MTECS10092C301.75MJ	1.75	MJ12	10.00	9.20	3	30.00	73.00	C	AC22

60° V-THREADING

MTECI

with coolant holes

INT/EXT

Single cutting edge for deep threads



Description	EDP Code	PITCH		TPI		Th	d	D	Flute	H	L	Shank	Coolant	Grade
		INT	EXT	INT	EXT									
MTECI 0605D20 A60	MTECI0605D20A60	0.50-0.80	0.4-0.8	56-28	64-32	>=6	6.00	5.00	4	20.00	58.00	C	Y	ACS22
MTECI 0808D28 A60	MTECI0808D28A60	0.50-0.80	0.4-0.8	56-28	64-32	>=9	8.00	8.00	4	28.00	64.00	C	Y	ACS22
MTECI 0808D30 A60	MTECI0808D30A60	1.00-1.75	0.8-1.5	28-14	32-16	>=10	8.00	8.00	4	30.00	64.00	C	Y	ACS22
MTECI 1010D35 A60	MTECI1010D35A60	1.00-1.75	0.8-1.5	28-14	32-16	>=12	10.00	10.00	4	35.00	73.00	C	Y	ACS22
MTECI 1212E40 A60	MTECI1212E40A60	2.0-3.0	1.75-2.5	13-8	15-10	>=16	12.00	12.00	5	40.00	84.00	C	Y	ACS22
MTECI 1614E45 A60	MTECI1614E45A60	2.0-3.0	1.75-2.5	13-8	15-10	>=18	16.00	14.00	5	45.00	101.00	C	Y	ACS22
MTECI 1616E50 A60	MTECI1616E50A60	2.0-3.0	1.75-2.5	13-8	15-10	>=20	16.00	16.00	5	50.00	101.00	C	Y	ACS22

BSPT THREADING

MTEC

INT/EXT



Description	EDP Code	TPI	BSPT	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTEC 0606C9 28BSPT	MTEC0606C928BSPT	28	RC1/8	6.00	6.00	3	9.50	58.00	C	AC22
MTEC 0808C14 19BSPT	MTEC0808C1419BSPT	19	RC1/4, RC3/8	8.00	8.00	3	14.00	64.00	C	AC22
MTEC 1212D19 14BSPT	MTEC1212D1914BSPT	14	RC1/2, RC7/8	12.00	12.00	4	19.10	84.00	C	AC22
MTEC 1616D28 11BSPT	MTEC1616D2811BSPT	11	RC1, RC2	16.00	16.00	4	28.90	105.00	C	AC22

BSPT THREADING

MTECB

with coolant holes

INT/EXT



Designation	TPI	BSPT	d	D	Flute	a _p	L	Shank C-Cylindrical	Grade
MTECB 08078C14 28BSPT	28.0	RC1/8	8.00	7.80	3	14.10	64.00	C	AC22
MTECB 1010D16 19BSPT	19.0	RC1/4-3/8	10.00	10.00	4	16.70	73.00	C	AC22
MTECB 1616E26 14BSPT	14.0	RC1/2-7/8	16.00	16.00	5	26.30	105.00	C	AC22
MTECB 1616D28 11BSPT	11.0	RC1-2	16.00	16.00	4	28.90	105.00	C	AC22



MTEC SOLID THREAD MILLING

NPSF THREADING

MTECB

with coolant holes in the flutes

INT/EXT



Description	EDP Code	TPI	NSPF	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTECB 0312C04 27NPSF	MTECB0312C0427NPSF	27	1/8	.312	.299	3	.430	2.500	C	AC22

NPT THREADING

MTEC

INT/EXT



Description	EDP Code	TPI	NPT	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTEC 0606C9 27NPT	MTEC0606C927NPT	27.0	1/16, 1/8	6.00	6.00	3	9.90	58.00	C	AC22
MTEC 0808C14 18NPT	MTEC0808C1418NPT	18.0	1/4, 3/8	8.00	8.00	3	14.80	64.00	C	AC22
MTEC 1212D20 14NPT	MTEC1212D2014NPT	14.0	1/2, 3/4	12.00	12.00	4	20.90	84.00	C	AC22
MTEC 1616D27 11.5NPT	MTEC1616D2711.5NPT	11.5	1, 2	16.00	16.00	4	27.60	105.00	C	AC22
MTEC 2020D39 8NPT	MTEC2020D398NPT	8.0	>=2-1/2	20.00	20.00	4	39.70	105.00	C	AC22

NPT THREADING

MTECB

with coolant holes in the flutes

INT/EXT



Description	EDP Code	TPI	NPT	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTECB 08076C10 27NPT	MTECB08076C1027NPT	27.0	1/8	8.00	7.60	3	10.80	64.00	C	AC22
MTECB 1010D16 18NPT	MTECB1010D1618NPT	18.0	1/4, 3/8	10.00	10.00	4	16.20	73.00	C	AC22
MTECB 16155D22 14NPT	MTECB16155D2214NPT	14.0	1/2, 3/4	16.00	15.50	4	22.70	105.00	C	AC22

NPTF THREADING

MTEC

INT/EXT



Description	EDP Code	TPI	NPTF	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTEC 0606C9 27NPTF	MTEC0606C927NPTF	27.0	1/16, 1/8	6.00	6.00	3	9.90	58.00	C	AC22
MTEC 0808C14 18NPTF	MTEC0808C1418NPTF	18.0	1/4, 3/8	8.00	8.00	3	14.80	64.00	C	AC22
MTEC 1212D20 14NPTF	MTEC1212D2014NPTF	14.0	1/2, 3/4	12.00	12.00	4	20.90	84.00	C	AC22

NPTF THREADING

MTECZ

with coolant holes in the flutes

INT/EXT



Description	EDP Code	TPI	NPTF	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTECZ 08076C10 27NPTF	MTECZ08076C1027NPTF	27.0	1/8	8.00	7.60	3	10.80	64.00	C	AC22
MTECZ 1010D16 18NPTF	MTECZ1010D1618NPTF	18.0	1/4, 3/8	10.00	10.00	4	16.20	73.00	C	AC22

MTEC SOLID THREAD MILLING



UN THREADING MTEC Internal



Description	EDP Code	TPI	UNC	UNF	UNEF	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTEC 06032C6 32UN	MTEC06032C632UN	32.0	8	10	12	6.00	3.20	3	6.80	58.00	C	AC22
MTEC 0604C11 28UN	MTEC0604C1128UN	29.0	-	7/16, 1/2	-	6.00	4.00	3	11.30	58.00	C	AC22
MTEC 0605C14 24UN	MTEC0605C1424UN	24.0	-	5/16	-	6.00	5.00	3	14.30	58.00	C	AC22
MTEC 0807C21 24UN	MTEC0807C2124UN	24.0	-	3/8	9/16, 5/8	8.00	7.00	3	20.00	64.00	C	AC22
MTEC 06045C12 20UN	MTEC06045C1220UN	20.0	1/4	-	-	6.00	4.50	3	12.10	58.00	C	AC22
MTEC 0807C21 20UN	MTEC0807C2120UN	20.0	-	7/16, 1/2	-	8.00	7.00	3	20.00	64.00	C	AC22
MTEC 1212E27 20UN	MTEC1212E2720UN	20.0	-	-	3/4, 1	12.00	12.00	5	27.30	84.00	C	AC22
MTEC 0605C14 18UN	MTEC0605C1418UN	18.0	5/16	-	-	6.00	5.00	3	14.80	58.00	C	AC22
MTEC 1010D26 18UN	MTEC1010D2618UN	18.0	-	9/16, 5/8	1-1/8, 1-5/8	10.00	10.00	4	26.10	73.00	C	AC22
MTEC 1010C26 16UN	MTEC0606C1616UN	16.0	3/8	-	-	6.00	6.00	3	16.70	58.00	C	AC22
MTEC 1212D31 16UN	MTEC1212D3116UN	16.0	-	3/4	-	12.00	12.00	4	30.00	84.00	C	AC22
MTEC 0615E37 14UN	MTEC0615E3714UN	14.0	-	7/8	-	16.00	15.00	5	37.20	105.00	C	AC22
MTEC 0808C22 13UN	MTEC0808C2213UN	13.0	1/2	-	-	8.00	8.00	3	22.50	64.00	C	AC22
MTEC 1010C26 12UN	MTEC1010C2612UN	12.0	9/16	-	-	10.00	10.00	3	26.50	73.00	C	AC22
MTEC 1616E41 12UN	MTEC1616E4112UN	12.0	-	1, 1-1/2	-	16.00	16.00	5	41.30	105.00	C	AC22
MTEC 1010C28 11UN	MTEC1010C2811UN	11.0	5/8	-	-	10.00	10.00	3	28.90	73.00	C	AC22
MTEC 1212C34 10UN	MTEC1212C3410UN	10.0	3/4	-	-	12.00	12.00	3	34.30	84.00	C	AC22
MTEC 1616C38 9UN	MTEC1616C389UN	9.0	7/8	-	-	16.00	15.00	3	38.10	105.00	C	AC22
MTEC 1616C42 8UN	MTEC1616C428UN	8.0	1.0	-	-	16.00	16.00	3	42.90	105.00	C	AC22

UN THREADING MTECB with coolant holes Internal



Description	EDP Code	TPI	UNC	UNF	UNEF	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTECB 06032C6 32UN	MTEC06032C632UN	32.0	8	10	12	6.00	3.20	3	6.80	58.00	C	AC22
MTECB 0605C11 28UN	MTEC0605C1128UN	28.0	-	1/4	-	6.00	5.00	3	11.30	58.00	C	AC22
MTECB 0806C14 24UN	MTECB0806C1424UN	24.0	-	5/16	-	8.00	6.60	3	14.30	64.00	C	AC22
MTECB 0808D21 24UN	MTECB0808D2124UN	24.0	-	-	9/16-5/8	8.00	8.00	4	20.60	64.00	C	AC22
MTECB 0808C21 20UN	MTECB0808C2120UN	20.0	-	7/16	-	8.00	8.00	3	21.00	64.00	C	AC22
MTECB 1010D22 20UN	MTECB1010D2220UN	20.0	-	1/2	-	10.00	10.00	4	22.30	73.00	C	AC22
MTECB 0605C14 18UN	MTECB0605C1418UN	18.0	5/16	-	-	6.00	5.60	3	14.80	58.00	C	AC22
MTECB 12113D26 18UN	MTECB12113D2618UN	18.0	-	9/16, 5/8	1-1/8, 1-5/8	12.00	11.30	4	26.10	84.00	C	AC22
MTECB 0806C16 16UN	MTECB0806C1616UN	16.0	3/8	-	-	8.00	6.70	3	16.70	64.00	C	AC22
MTECB 0616E37 14UN	MTECB0616E3714UN	14.0	-	7/8	-	16.00	16.00	5	37.20	105.00	C	AC22
MTECB 1009C22 13UN	MTECB1009C2213UN	13.0	1/2	-	-	10.00	9.20	3	22.50	73.00	C	AC22
MTECB 12114C28 11UN	MTECB12114C2811UN	11.0	5/8	-	-	12.00	11.40	3	28.90	84.00	C	AC22
MTECB 16144D34 10UN	MTECB16144D3410UN	10.0	3/4	-	-	16.00	14.40	4	34.30	105.00	C	AC22
MTECB 20195D42 8UN	MTECB20195D428UN	8.0	1.0	-	-	20.00	19.50	4	42.90	105.00	C	AC22

UN THREADING MTEC E External



Description	EDP Code	TPI	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTEC E 1010D16 24UN	MTECE1010D1624UN	24.0	10.00	10.00	4	16.40	73.00	C	AC22
MTEC E 1212E21 20UN	MTECE1212E2120UN	20.0	12.00	12.00	5	21.00	84.00	C	AC22



MTEC SOLID THREAD MILLING

UN THREADING
MTECSH
Small diameter



Description	EDP Code	TPI	UNC	UNF	d	D	Flute	H	L	SHANK C-Cylindrical	Grade
MTECSH 06012C4 80UN	MTECSH06012C480UN	80.0	-	0	6.00	1.15	3	4.00	58.00	C	AC22
MTECSH 06016C6 56UN	MTECSH06016C656UN	56.0	2	3	6.00	1.65	3	6.60	58.00	C	AC22
MTECSH 06019C5 48UN	MTECSH06019C548UN	48.0	3	4	6.00	1.90	3	5.20	58.00	C	AC22
MTECSH 06024C7 40UN	MTECSH06024C740UN	40.0	5	6	6.00	2.45	3	7.00	58.00	C	AC22
MTECSH 06021C8 40UN	MTECSH06021C840UN	40.0	4	-	6.00	2.10	3	8.00	58.00	C	AC22
MTECSH 06024C9 40UN	MTECSH06024C940UN	40.0	5	6	6.00	2.45	3	9.60	58.00	C	AC22
MTECSH 06025C10 32UN	MTECSH06025C1032UN	32.0	6	-	6.00	2.55	3	10.50	58.00	C	AC22
MTECSH 06032C9 32UN	MTECSH06032C932UN	32.0	8	-	6.00	3.20	3	9.50	58.00	C	AC22
MTECSH 06037C10 32UN	MTECSH06037C1032UN	32.0	-	10	6.00	3.70	3	10.50	58.00	C	AC22
MTECSH 06037C15 32UN	MTECSH06037C1532UN	32.0	-	10	6.00	3.70	3	15.00	58.00	C	AC22
MTECSH 06042C11 28UN	MTECSH06042C1128UN	28.0	-	12	6.00	4.20	3	11.00	58.00	C	AC22
MTECSH 0605C14 28UN	MTECSH0605C1428UN	28.0	-	1/4	6.00	5.00	3	14.50	58.00	C	AC22
MTECSH 06035C10 24UN	MTECSH06035C1024UN	24.0	10, 12	-	6.00	3.50	3	10.60	58.00	C	AC22
MTECSH 08066C17 24UN	MTECSH08066C1724UN	24.0	-	5/16	8.00	6.60	3	17.00	64.00	C	AC22
MTECSH 08066C24 24UN	MTECSH08066C2424UN	24.0	-	5/16	8.00	6.60	3	24.00	64.00	C	AC22
MTECSH 06047C19 20UN	MTECSH06047C1920UN	20.0	1/4	-	6.00	4.75	3	19.00	58.00	C	AC22
MTECSH 0808C25 20UN	MTECSH0808C2520UN	20.0	-	7/16	8.00	8.00	3	25.00	64.00	C	AC22
MTECSH 0606C17 18UN	MTECSH0606C1718UN	18.0	5/16	-	6.00	6.00	3	17.00	58.00	C	AC22
MTECSH 0606C23 18UN	MTECSH0606C2318UN	18.0	5/16	-	6.00	6.00	3	23.00	58.00	C	AC22
MTECSH 08067C22 16UN	MTECSH08067C2216UN	16.0	3/8	-	8.00	6.70	3	22.00	64.00	C	AC22
MTECSH 10092C27 13UN	MTECSH10092C2713UN	13.0	1/2	-	10.00	9.20	3	27.50	73.00	C	AC22
MTECSH 12114C34 11UN	MTECSH12114C3411UN	11.0	5/8	-	12.00	11.40	3	34.50	84.00	C	AC22

UN THREADING
MTECS
Small diameter



Description	EDP Code	TPI	UNC	UNF	d	D	Flute	H	L	SHANK C-Cylindrical	Grade
MTECS 03012C8 80UN	MTECS03012C880UN	80.0	-	0	3.00	1.15	3	8.00	39.00	C	AC22
MTECS 03015C6 72UN	MTECS03015C672UN	72.0	-	1	3.00	1.45	3	6.00	39.00	C	AC22
MTECS 06016C6 56UN	MTECS06016C656UN	56.0	2	3	6.00	1.65	3	6.60	58.00	C	AC22
MTECS 06019C5 48UN	MTECS06019C548UN	48.0	3	4	6.00	1.90	3	5.20	58.00	C	AC22
MTECS 03021C12 40UN	MTECS03021C1240UN	40.0	4	-	3.00	2.10	3	12.00	39.00	C	AC22
MTECS 06021C8 40UN	MTECS06021C840UN	40.0	4	-	6.00	2.10	3	8.00	58.00	C	AC22
MTECS 06024C9 40UN	MTECS06024C940UN	40.0	5	6	6.00	2.45	3	9.60	58.00	C	AC22
MTECS 06021C6 40UN	MTECS06021C640UN	40.0	4	-	6.00	2.10	3	6.30	58.00	C	AC22
MTECS 06033C9 36UN	MTECS06033C936UN	36.0	-	8	6.00	3.30	3	9.00	58.00	C	AC22
MTECS 06025C7 32UN	MTECS06025C732UN	32.0	6	-	6.00	2.55	3	7.10	58.00	C	AC22
MTECS 06025C10 32UN	MTECS06025C1032UN	32.0	6	-	6.00	2.55	3	10.50	58.00	C	AC22
MTECS 06032C9 32UN	MTECS06032C932UN	32.0	8	10	6.00	3.20	3	9.50	58.00	C	AC22
MTECS 06032C12 32UN	MTECS06032C1232UN	32.0	8	10	6.00	3.20	3	12.50	58.00	C	AC22
MTECS 06037C10 32UN	MTECS06037C1032UN	32.0	-	10	6.00	3.70	3	10.50	58.00	C	AC22
MTECS 06037C15 32UN	MTECS06037C1532UN	32.0	-	10	6.00	3.70	3	15.00	58.00	C	AC22
MTECS 0605C14 28UN	MTECS0605C1428UN	28.0	-	1/4	6.00	5.00	3	14.50	58.00	C	AC22
MTECS 0605C19 28UN	MTECS0605C1928UN	28.0	-	1/4	6.00	5.00	3	19.00	58.00	C	AC22
MTECS 08066C17 24UN	MTECS08066C1724UN	24.0	-	5/16	8.00	6.60	3	17.00	64.00	C	AC22
MTECS 08066C24 24UN	MTECS08066C2424UN	24.0	-	5/16	8.00	6.60	3	24.00	64.00	C	AC22
MTECS 06047C14 20UN	MTECS06047C1420UN	20.0	1/4	-	6.00	4.75	3	14.00	58.00	C	AC22
MTECS 06047C19 20UN	MTECS06047C1920UN	20.0	1/4	-	6.00	4.75	3	19.00	58.00	C	AC22
MTECS 06047C19 20UN-L	MTECS06047C1920UN-L	20.0	1/4	-	6.00	4.75	3	19.00	105.00	C	AC22
MTECS 0808C25 20UN	MTECS0808C2520UN	20.0	-	7/16	8.00	8.00	3	25.00	64.00	C	AC22
MTECS 0606C17 18UN	MTECS0606C1718UN	18.0	5/16	-	6.00	6.00	3	17.00	58.00	C	AC22
MTECS 0606C23 18UN	MTECS0606C2318UN	18.0	5/16	-	6.00	6.00	3	23.00	58.00	C	AC22
MTECS 1212D35 18UN	MTECS1212D3518UN	18.0	-	5/8	12.00	12.00	4	35.00	84.00	C	AC22
MTECS 08067C22 16UN	MTECS08067C2216UN	16.0	3/8	-	8.00	6.70	3	22.00	64.00	C	AC22
MTECS 08067C30 16UN	MTECS08067C3016UN	16.0	3/8	-	8.00	6.70	3	30.20	64.00	C	AC22
MTECS 10092C27 13UN	MTECS10092C2713UN	13.0	1/2	-	10.00	9.20	3	27.50	73.00	C	AC22
MTECS 12114C34 11UN	MTECS12114C3411UN	11.0	5/8	-	12.00	11.40	3	34.50	84.00	C	AC22



UN THREADING

MTECZ

with coolant holes in the flutes

Internal



Description	EDP Code	TPI	UNC	UNF	UNEF	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTECZ 1010D22 20UN	MTECZ1010D2220UN	20.0	-	1/2	-	10.00	10.00	4	22.30	73.00	C	AC22
MTECZ 12113D26 18UN	MTECZ12113D2618UN	18.0	-	9/16-5/8	1-1/8-1-5/8	12.00	11.30	4	26.10	84.00	C	AC22
MTECZ 08067C16 16UN	MTECZ08067C1616UN	16.0	3/8	-	-	8.00	6.70	3	16.70	64.00	C	AC22

WHITWORTH THREADING

MTEC

INT/EXT



Description	EDP Code	TPI	BSP	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTEC 0606C9 28W	MTEC0606C928W	28	G1/8	6.00	6.00	3	9.50	58.00	C	AC22
MTEC 0808C14 19W	MTEC0808C1419W	19	G1/4, G3/8	8.00	8.00	3	14.00	64.00	C	AC22
MTEC 1212D19 14W	MTEC1212D1914W	14	G1/2, G7/8	12.00	12.00	4	19.30	84.00	C	AC22
MTEC 1212D26 14W	MTEC1212D2614W	14	G1/2, G7/8	12.00	12.00	4	26.30	84.00	C	AC22
MTEC 1212C24 11W	MTEC1212C2411W	11	G1, G1-1/2	12.00	12.00	3	24.20	84.00	C	AC22
MTEC 1616D28 11W	MTEC1616D2811W	11	G1, G3	16.00	16.00	4	38.10	105.00	C	AC22

WHITWORTH THREADING

MTECB

with coolant holes

INT/EXT



Description	EDP Code	TPI	BSP	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTECB 08078C14 28W	MTECB08078C1428W	28	G1/8	8.00	7.80	3	14.10	64.00	C	AC22
MTECB 1010D16 19W	MTECB1010D1619W	19	G1/4, G3/8	10.00	10.00	4	16.70	73.00	C	AC22
MTECB 1616E26 14W	MTECB1616E2614W	14	G1/2, G7/8	16.00	16.00	5	26.30	105.00	C	AC22
MTECB 1616D38 11W	MTECB1616D3811W	11	G>1	16.00	16.00	4	38.10	105.00	C	AC22
MTECB 2020E47 11W	MTECB2020E4711W	11	G>1	20.00	20.00	5	47.30	105.00	C	AC22

WHITWORTH THREADING

MTECS

INT/EXT



Designation	TPI	BSP	d	D	Flute	ap	L	SHANK C-Cylindrical	Grade
MTECS 08078C19 28W	28.0	G 1/8	8.00	7.80	3	19.50	64.00	C	AC22
MTECS 1010D30 19W	19.0	G 1/4-3/8	10.00	10.00	4	30.00	73.00	C	AC22
MTECS 1212D37 14W	14.0	G 1/2-7/8	12.00	12.00	4	37.00	84.00	C	AC22
MTECS 1616D44 11W	11.0	G>1	16.00	16.00	4	44.00	105.00	C	AC22



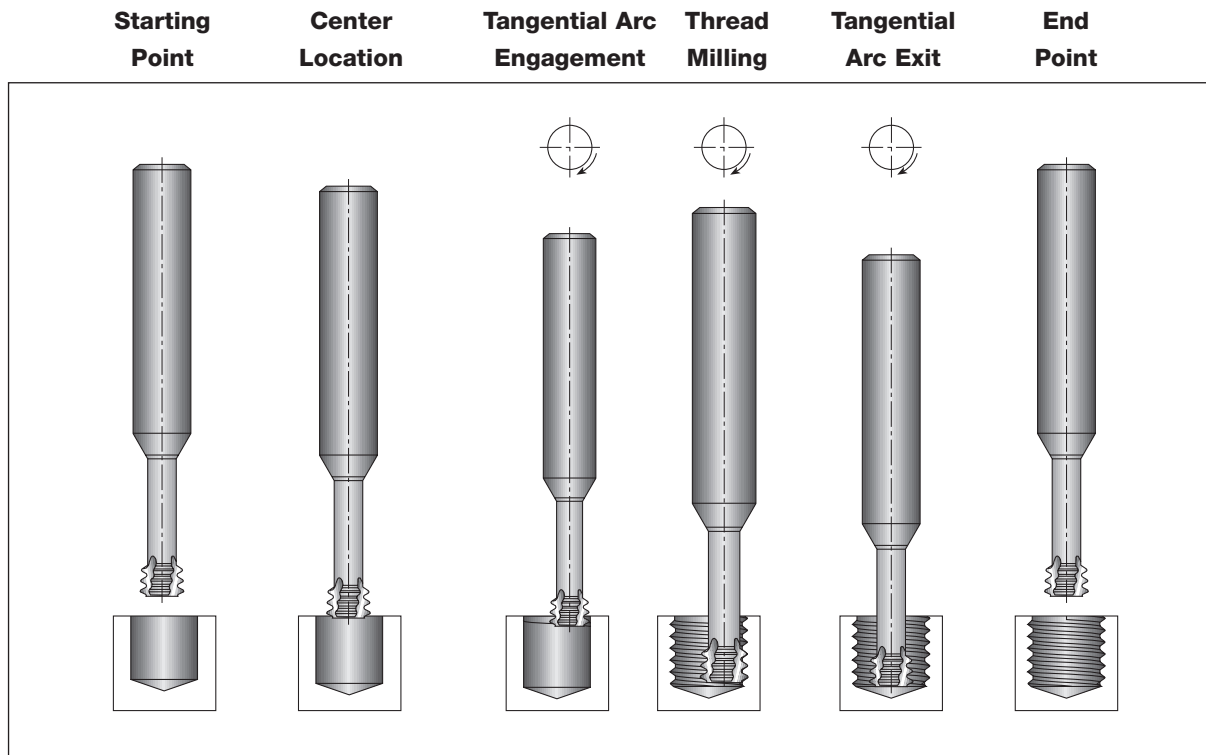
TC SERIES THREAD MILLING

USER GUIDE

Cutting Speed (m/min)	Cutting Diameter											
	Feed (mm/tooth)											
AC22	2	3	4	6	8	10	12	14	16	20	25	30
100-250	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
80-210	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
65-170												
110-180	0.02	0.03	0.03	0.05	0.06	0.07	0.08	0.09	0.1	0.12	0.15	0.18
95-160	0.02	0.03	0.03	0.05	0.06	0.07	0.08	0.09	0.1	0.12	0.15	0.18
90-160	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
65-200	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
70-210	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
95-160	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
130-170	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
75-100	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
110-170	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
70-155	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
85-100	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.1	0.11
120-160	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
75-160	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
70-150	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
110-140	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
120-160	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
110-140	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.21	0.15	0.18	0.21
160-300	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18	0.21
100-400	0.05	0.06	0.07	0.09	0.1	0.11	0.12	0.13	0.15	0.18	0.22	0.25
20-80	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05
20-80	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05
55-65												
45-55												
90-105												
55-65												

* For cutters with long cutting flute, reduce feed rate by 40%.

TFMTECS Small Diameter, Short Solid Carbide Thread Mills Thread Milling - Recommended Procedure



Cutting Data

ISO	Materials	Cutting Speed, m/min	Feed (mm/tooth) for Diameter (mm)												
			Ø1.5	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø12	Ø14	Ø15
P	Low & medium carbon steels	60-120	0.05	0.05	0.07	0.09	0.11	0.13	0.14	0.15	0.16	0.16	0.17	0.18	0.18
	High carbon steels	60-90	0.04	0.05	0.06	0.08	0.09	0.1	0.12	0.13	0.14	0.14	0.16	0.17	0.18
	Alloy steels, treated steels	50-80	0.04	0.04	0.05	0.05	0.06	0.07	0.07	0.08	0.09	0.1	0.12	0.13	0.14
	Cast steels	70-90	0.04	0.04	0.05	0.05	0.06	0.07	0.07	0.08	0.09	0.1	0.12	0.13	0.14
M	Stainless steels	60-90	0.03	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09	0.1	0.11	0.12	0.13
S	Nickel alloys, titanium alloys.	20-40	0.03	0.03	0.04	0.04	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08
K	Cast iron	40-80	0.05	0.05	0.07	0.09	0.11	0.13	0.14	0.15	0.16	0.16	0.17	0.18	0.18
N	Aluminum	80-150	0.05	0.05	0.07	0.09	0.11	0.13	0.14	0.15	0.16	0.16	0.17	0.18	0.18
	Synthetics, duroplastics, thermoplastics	50-200	0.1	0.11	0.12	0.14	0.16	0.18	0.19	0.19	0.19	0.19	0.19	0.2	0.2



TC SERIES THREAD MILLING

TOOL-FLO MTECS Small Diameter, Short Solid Carbide Thread Mills

The TFMTECS (**M**ill **T**hread **E**ndmills **C**arbide **S**hort) solid carbide thread mills are used for the production of small internal threads. These thread mills feature a short 3-tooth cutting zone with 3 flutes and a released neck between the cutting zone and the shank.

This unique tool design offers very precise profiles and a high performance AC22 submicron carbide grade with PVD titanium aluminum nitride coating. The very short profile exerts a low force which minimizes tool bending. This facilitates parallel and high thread precision for the entire length.



Compared to taps, the **MILLTHREAD** is more accurate, thread machining is substantially faster and there is no danger of a broken tap being stuck in the hole.

Thread Mill vs. Tap

Features	Solid Carbide Thread Mills	Taps
Thread surface quality	High	Medium
Thread geometry	Very accurate	Medium
Thread tolerance	4H, 5H, 6H with std. cutter	6H with standard tap, 4H with special tap
Machining time	Shorter or same as tap	Short
Machining load	Very low	High
Range of thread diameters	Wide range of diameters	Specific tap for each thread size
Right-/Left-hand threading	Same cutter	Specific tap for right- and left-hand
Geometric shape	Full profile	Partial profile

Features

- Minimum thread size: M1.4x0.3 (1.1 mm bore diameter)
- up to M20x2.50
- 2xD and 3xD threading lengths
- High cutting speeds
- Short cycle time
- Low cutting forces due to the short contact profile resulting in accurate and parallel thread
- Prevents oval threads near thin walls
- No more dealing with broken taps
- Reliable threading in blind holes
- Excellent performance on hardened steel, high temperature alloys and titanium.

